REMARKS

Claims 1-11, 53-55, 66-70 and 75-90 are pending in the application. Claims 1-11, 53-55, 66-70 and 75-90 have been rejected by the Examiner.

Claims 1-90 were objected to because of informalities with regard to the claims annotation provided in the previous response. Applicants have adjusted the annotations in accordance with the Examiner's statements. Applicants submit that the claims as now annotated are correct and request withdrawal of this objection.

Claims 1-11, 53-55, 66-70 and 75-90 were rejected under 35 USC 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, in claim 1, the Examiner states that the phrases "relative stability" and "absolute stability" are vague and indefinite. Similarly, the Examiner states that the term 'stable' in claims 53-55 and throughout is indefinite.

During patent examination, the pending claims must be given the broadest reasonable interpretation consistent with the specification. *In re Morris,* 127 F. 3d 1048, 1054, 44 USPQ2d 1023, 1027 (fed. Cir. 1997); *In re Prater*, 415 F.2d 1393, 162 USPQ 541 (CCPA 1969). When the specification states the meaning that a term in the claim is intended to have, the claim is examined using that meaning, in order to achieve a complete exploration of the applicant's invention and its relation to the prior art. *In re Zletz*, 893 F.2d 319, 13 USPQ2d 1320 (Fed. Cir. 1989). See also MPEP 2173.05(a) and MPEP 2111-2111.01.

Therefore, as the Applicants have set forth very specific definitions of the phrases "relatively stability," "absolute stability" and "stable," Applicants submit that these terms are not vague or indefinite. See Applicants' Application, page 1, lines 27-33, in which specific definitions of these terms is provided. However, in order to further the application, Applicants have amended claims 1, 53-55 and throughout to include the specific limitations of these defined terms in the claims. Applicants request that the objections with regards to the claims with these phrases be withdrawn.

With regard to claim 4, line 2, the Examiner has found that the term 'disordered' is vague and indefinite and suggested that the disordered porosity limitation in claim 53 being incorporated into the first claim which recites the 'disordered' limitation, claim 4. Applicants have amended claim 4 to include both the limitations from claim 53 and the limitation from claim 54, making this term definite. Applicants request that the objection with regard to claim 4 be withdrawn.

Claims 1, 2, 55 and 66 were rejected under 35 USC 102(e) as being anticipated by Brinker, et al. (US Patent No. 5,858,457). Applicants respectfully disagree. As claim 66 has been canceled by this amendment, Applicants will not provide any discussion of that claim.

As the Examiner has stated "Brinker is silent about the relative stability and absolute stability of dielectric constant in a humid atmosphere, it is believed that the aforementioned dielectric properties are inherent to Brinker's mesoporous silica films, since the silica films are essentially made by the same surfactant templated process as the instant claimed invention." Applicants believe that the Examiner is mistaken.

As set forth in Applicants' specification page 6, lines 14-17, and page 12, line 27 through page 13, line 16, among other places, the stability of the film in humid environments is achieved by dehydroxylation, which is not shown, taught nor suggested by Brinker. Indeed, the term dehydroxylation is not even mentioned in Brinker. As Brinker does not dehydroxylate, which is necessary for film stability, the Applicants do not use the 'same surfactant templated process.' It is well known to those skilled in the art that the lack of a dehydroxylation step would indicate that the films of Brinker do not have stable dielectric constants in humid environments after the processing of the film is completed.

Applicants appreciate the Examiner's comments in the Advisory Action. Claim 1 has been amended to address stability, not necessarily dehydroxylation. As the Examiner did not address the fact that Brinker does not disclose stable films having stability as is now set out in amended claim 1, Applicants have not further amended this claim. Applicants believe that the stability definition set forth in claim 1 is not shown, taught nor suggested by Brinker.

Applicants will submit supporting affidavits with regards to dehydroxylation under separate cover.

Therefore, Applicants submit that claims 1, 2, 55 and 66 are patentably distinguishable over the prior art and request allowance of these claims.

Claims 1-11, 53-55, 67-70 and 79-90 were rejected under 35 USC 103(a) as being unpatentable over Brinker, et al. Applicants respectfully disagree.

With regard to claims 1, 2, 55 and 66, the Examiner stated that each of the claimed embodiments is at most of minor modification to one of ordinary skill. Applicants respectfully disagree. Brinker is directed to achieving highly ordered films, and uses relative humid conditions to achieve the order desired, as can be seen in Example 2, column 8, and Example 8, column 10. There is no mention of the environment in which the film is to be used, which is the environment to which the Applicants' stability limitations are directed, rather than the environment in which the film is deposited and dried, or the environment in

which the substrate is preconditioned. As discussed above, there is no mention of the film stability after the completion of the process, nor any dehydroxylation step that achieves the stability set forth by the Applicants in claims 1, 2, 55 and 66. It is well known to those skilled in the art that the lack of a dehydroxylation step would indicate that the films of Brinker do not have stable dielectric constants in humid environments after the processing of the film is completed.

Therefore, Applicants submit that claims 1, 2, 55 and 66 are patentably distinguishable over the prior art and request allowance of these claims.

With regard to claims 3, 5-8 and 67, as the Examiner states Brinker is silent about the standard deviation of the silica film. Claims 5-8 have been canceled by this amendment. The Examiner goes on to say that the spin-coating method mentioned in Brinker would make it obvious to one of ordinary skill to make silica films with small standard deviation in thickness, motivated by the desire to improve the dielectric constant property uniformity of the film. Applicants are not sure they understand the Examiner's point, as the spin coating and the film dimensions claimed relate to the thickness of the film, not its dielectric constant. Further, with regard to claim 3 and 67, the films claimed are stable, relatively stable or absolutely stable films, which, as discussed above, are not shown, taught nor suggested by Brinker. It is well known to those skilled in the art that the lack of a dehydroxylation step would indicate that the films of Brinker do not have stable dielectric constants in humid environments after the processing of the film is completed. Applicants submit that claims 3 and 67 are patentably distinguishable over the prior art and request allowance of these claims.

With regard to claims 4, 9-11, 53-54 and 68-90, the Examiner states the results as determined by Brinker depend *strongly upon the preconditioning RH*. Applicants' invention as claimed is directed to finished films have stability at varying levels of relative humidity, about which Brinker is silent. Specifically, Brinker is attempting to achieve highly ordered films, while these claims are directed to claims with a disordered porosity. Brinker teaches away from disordered films. Applicants believe that the Examiner may be confusing the RH of the preconditioning step that causes the films to be highly ordered (see Example 8 of Brinker), with the RH of the environment directed to stability of a dielectric constant. Applicants are attempting to achieve disordered porosity films with stability in humid operating environments, the opposite of what is accomplished in Brinker. It is well known to those skilled in the art that the lack of a dehydroxylation step would indicate that the films of Brinker do not have stable dielectric constants in humid environments after the processing of the film is completed.

Claims 9-11, 54 and 68-74 were canceled by this amendment. Applicants therefore submit that claims 4, 53 and 75-90 are patentably distinguishable over the prior art and request allowance of these claims.

With regard to claims 79-90, the method limitations have now been shown to produce a patentably distinct article. Further, the dehydroxylation processes of claims 79-90 are not shown, taught nor suggested by Brinker. The disordered porosity films of claims 75-78 are not desired in Brinker, as Brinker teaches away from disordered films. Therefore, Applicants submit that claims 75-90 are patentably distinguishable over the prior art and request allowance of these claims.

New claims 91 and 92 are added to include carbon containing groups. The subject matter is supported by the specification.

As stated above, Applicants will submit supporting affidavits with regards to dehydroxylation under separate cover within one month of this response.

No new matter has been added by this amendment. Allowance of all claims is requested. The Examiner is encouraged to telephone the undersigned at (503) 222-3613 if it appears that an interview would be helpful in advancing the case.

Respectfully submitted,

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